

DEVELOPMENT OF THE NORTH-WEST.

THE Lake Manitoba Railway and Canal.

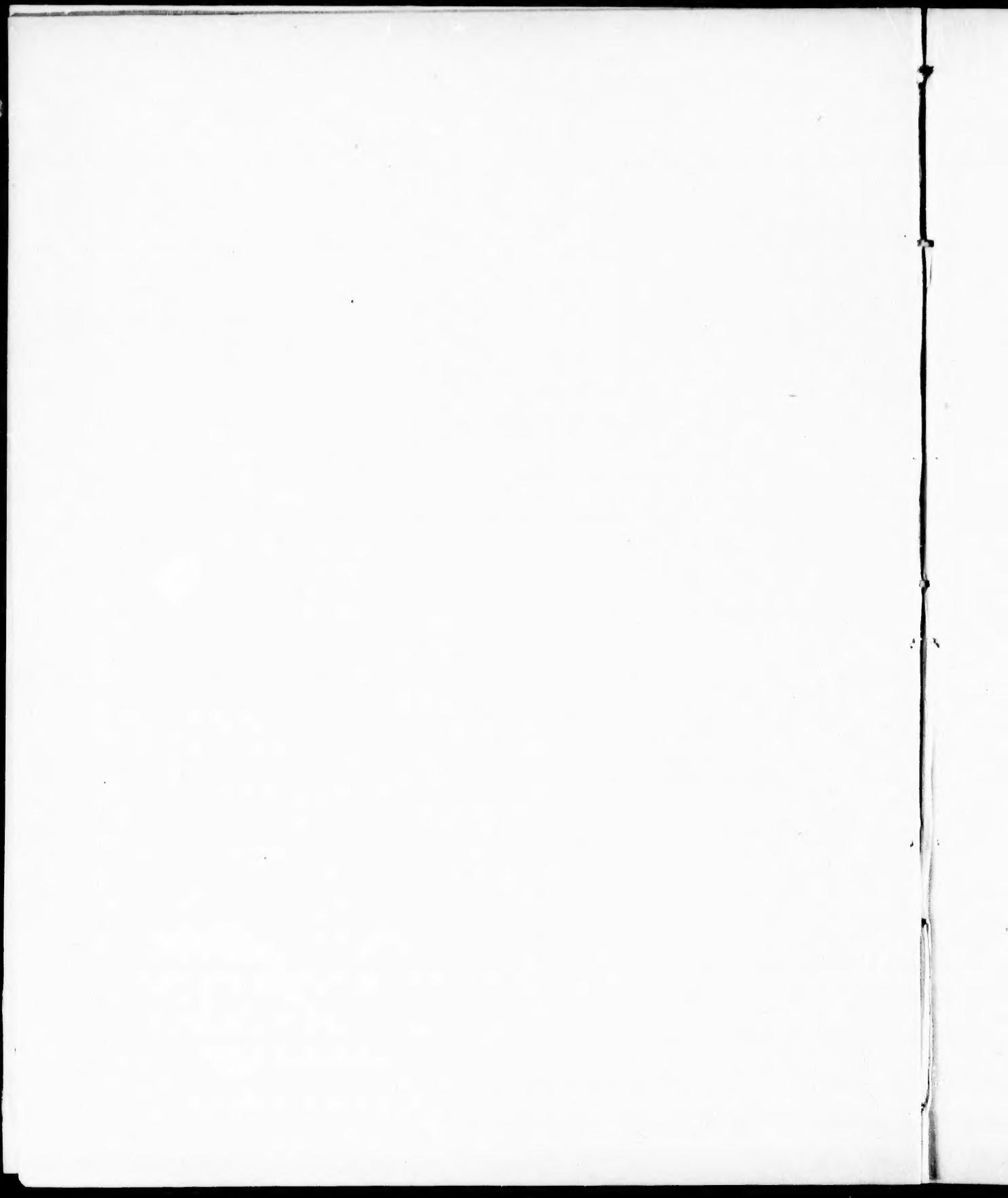
With Reports, Plans, Debates and Memorials Thereon.

CONTENTS :

Report of T. Vernon Smith, C.E., on the proposed Lake Manitoba Railway and Canal.....	3
Development of the North-West—Interlake Navigation.....	9
Local Endorsement of the Project.....	13

Ottawa—1889.

The promoters of the Lake Manitoba Railway and Canal Company respectfully submit the within reports, maps, plans, memorials and Parliamentary debates upon the importance of the development of that portion of the great Canadian North-West, lying north and east of Lake Manitoba and Winnipegosis. A thorough explanatory survey of the country has convinced the promoters of this enterprise that the Dominion is possessed of no more valuable heritage than this section to which they have devoted attention. Throughout the Swan Lake district an immense area of prairie land exists; east and north of this valuable tracts of timber are found, while the mineral resources are such as to justify the belief that valuable discoveries will yet be made in various portions of the newly developed territory. At the present time every kind of industry is virtually prohibited by reason of the impossibility of transport and the absence of continuous water communication. This enterprise aims at establishing by means of a railway from Portage La Prairie to Lake Manitoba and a canal between Lakes Manitoba and Winnipegosis, continuous means of transport to the head of Lake Winnipegosis and to Dawson's Bay, where the Red Deer river affords facilities for reaching the western interior, and the subsequent establishment of a route between Lake Winnipegosis to the North Saskatchewan, making a continuous water route of 1,500 miles. For many years this enterprise has been advocated by leading public men, and those who now seek by private enterprise, to give substantial effect to the scheme, consider it advisable that the reports of their engineer and other data should be arranged in a convenient form for reference.



REPORT

—OF—

MR. T. T. VERNON SMITH, C.E.,

ON—

PROPOSED LAKE MANITOBA RAILWAY AND CANAL.

PL.A.N
of
PORTAGE LA PRAIRIE

January 1889.

RANGE VI.

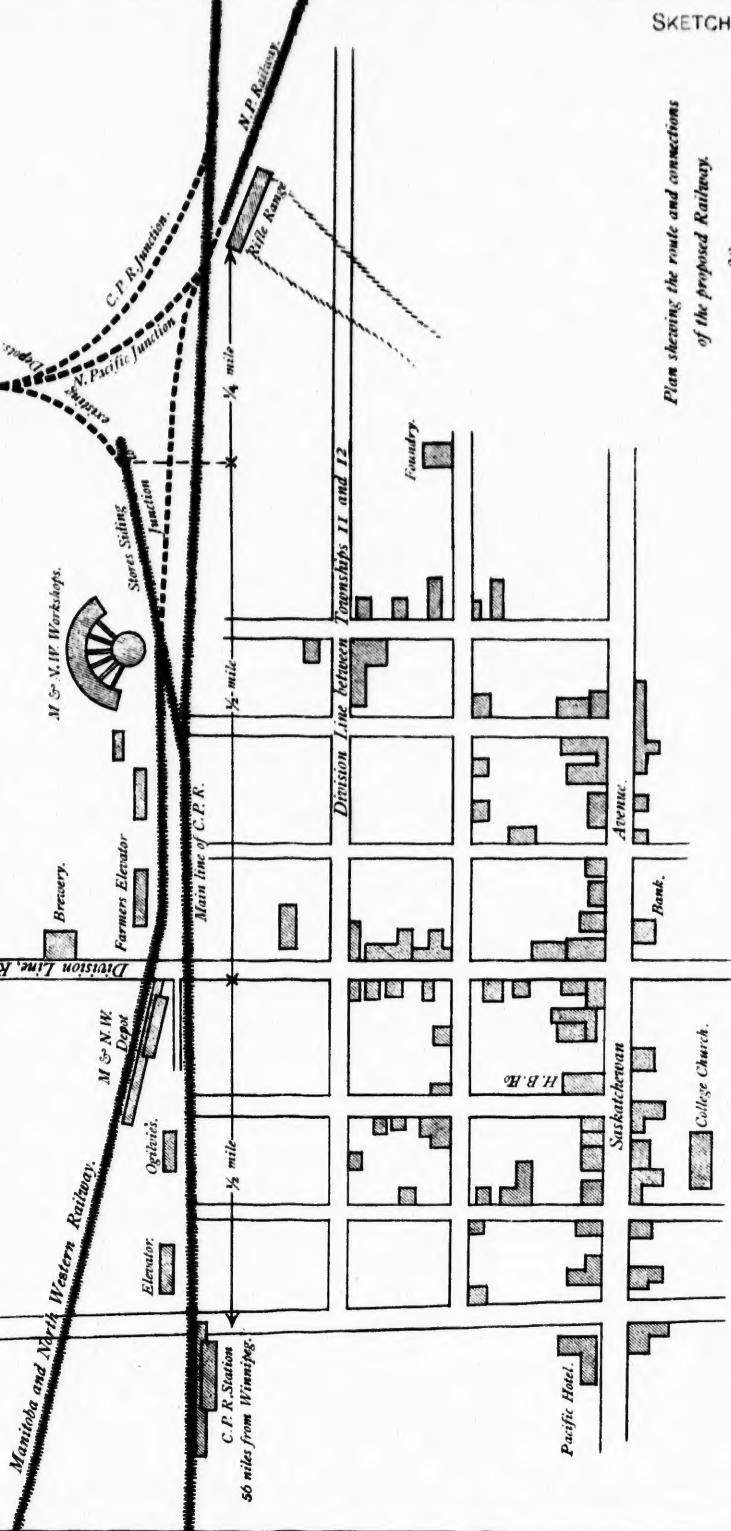
RANGE VII.

TOWNSHIP 12.

Grading of N.P. finished to Rifle Range.

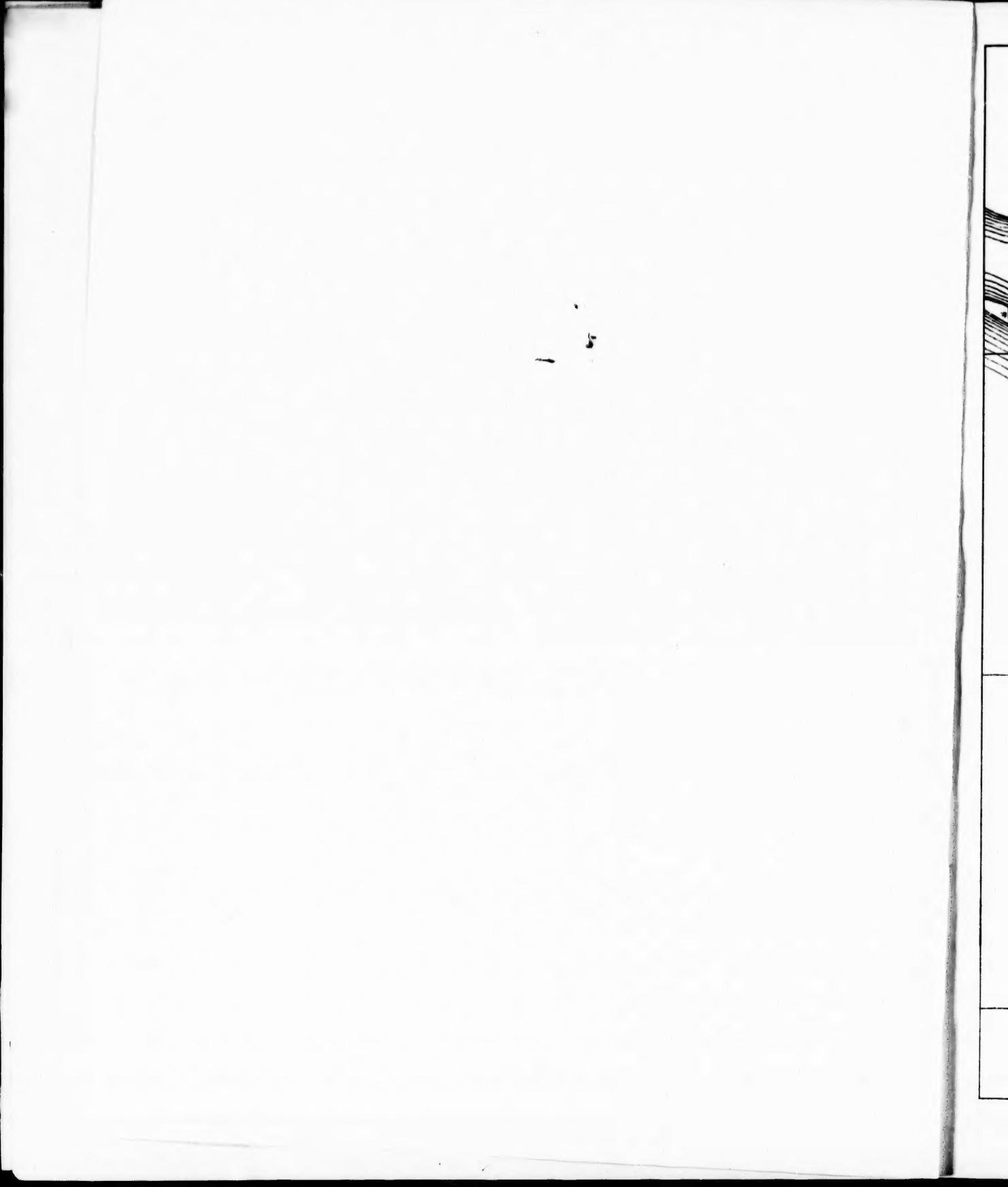
N.P.

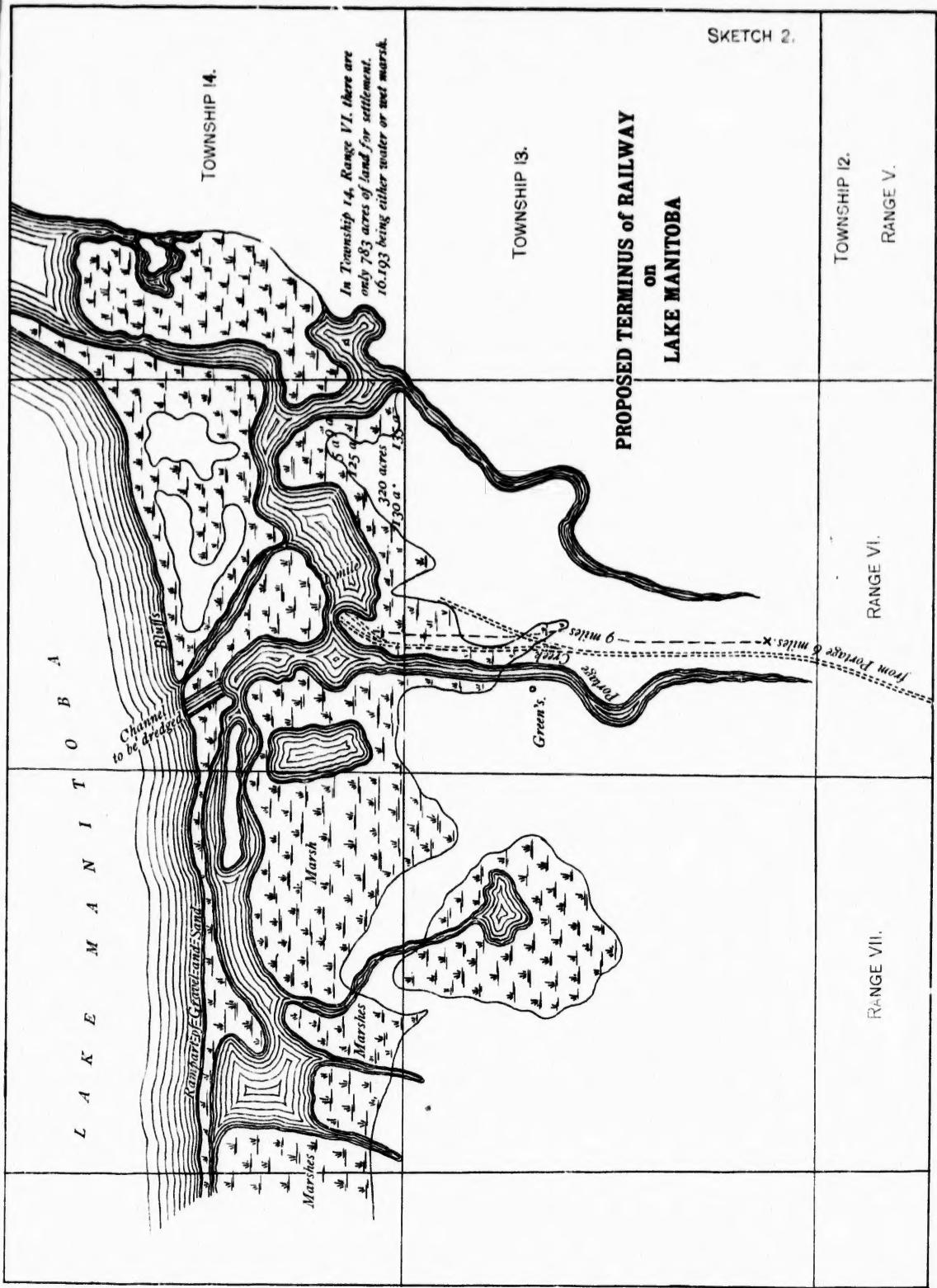
Proposed Railways to Lake Manitoba.



SKETCH I.

Plan showing the route and connections
of the proposed Railway.
1889.





Lake Manitoba Railway and Canal.

REPORT OF T. T. VERNON SMITH, C.E., ON THE PROJECT.

J. A. Gemmill, Esq., Barrister, Ottawa; on behalf of the Promoters of the Lake Manitoba Railway and Canal Company.

DEAR SIR,—In response to instructions received early in the autumn of 1888, I visited Lake Manitoba and examined the different points upon which specific information was desired.

Lake Manitoba is a magnificent sheet of water stretching north and south about 124 miles, whilst the widest part, which is on the line of the 15th Township in 26 miles, that is, from the middle of the fourth to the middle of the ninth ranges. Round the whole of the southern shore, which is generally in the line of the 14th township, or from 80 to 85 miles north of the international boundary, the action of the ice, together with the severe storms to which the lake is liable, have thrown up a mound or bluff of sand and gravel from 4 to 10 feet high, and from 100 to 300 feet wide, which the decomposing shells and other animal and vegetable matter have compacted into a solid rampart sufficiently strong to resist all ordinary storms, and to sharply define the lake boundary. Behind this sandy beach, which stretches for 50 miles from St. Laurent on the east to near Totagan on the west, are from 2 to 5 miles of an almost impassable marsh, full of lakes and water holes about the same level as the lake, and covered with a dense mass of reeds and other aquatic plants, so high and thick that the lake cannot be seen as it is approached from the south. In this belt of swampy desolation are a number of lakes with 8 or 10 feet of water in them and with an area of from 1 to 4 or 5 square miles each, and in two places small creeks have forced their way from these deeper lakes to the main Manitoba. The only constant stream running towards the principal body of water in this distance is the Portage Creek, which, heading about seven miles from the Assiniboine near Portage La Prairie, runs due north for ten miles across a gently undulating prairie and then loses itself in the marshes to the south of Lake Manitoba. This was formerly the route by which the trade of the North-West was portaged from the lake to the Assiniboine, and hence the name of the creek and the fur depots which formed the nucleus of the present town of Portage La Prairie. The creek itself is navigable for boats drawing 3½ feet of water, from a point ten miles from the Assiniboine to the lake, and below this point is from 300 to 500 feet in width. At extreme high water in the Assiniboine that river has been known to overflow its banks at Portage La Prairie and to run down this Portage Creek to Lake Manitoba, and canoes have passed between the two, but under ordinary conditions the Assiniboine is 10 feet

below the level of Portage La Prairie, although 15 feet above Lake Manitoba, so that Portage town stands on a plateau 25 feet higher than the lake. To make a canal between the two waters, which has been frequently suggested, would therefore involve a very heavy cutting through this elevated plateau, but by striking the Assiniboine 20 miles to the east of Portage, or 35 miles west of Winnipeg, at Raeburn, the Assiniboine is 10 feet lower than Lake Manitoba, and the intervening country is very favorable for the water communication. The town of Portage is, however, admirably situated for the centre of commerce likely to be developed by opening up a communication with Lake Manitoba. Besides the main line of the Canadian Pacific Railway, two other railways come into the town, and when they are connected, as it is intended they shall be, there will be here a regular cross of the main east and west transcontinental line, and a north-west and south-east line of even more importance locally than the existing route. In SKETCH 1 I have tried to show the relative position of the three railways; the main C. P. R. running to the north of the town; the Manitoba and North-Western and the Northern Pacific, with the dotted connection proposed between them. I have also dotted in the line from Lake Manitoba with the triple connection to the existing roads. SKETCH 2 shows the northern end of this line near to the Lake, with the position of Portage Creek and the lake in Township 14 of the 6th Range, which seems to me the best adapted for the terminus of the road. It would shorten the railway to use the navigation of the Portage Creek, but it is a question whether the necessary dredging to obtain 6 feet of water would not cost more than the railway, whilst the admirably roomy lake terminus would give every facility for handling a large fleet of boats safe from the gales of Lake Manitoba and the movement of the ice in the spring. It would require a railway 15 miles long to complete this part of the scheme, and this would be the natural piling ground for the lumber manufactured on Lake Manitoba, from whence it could be distributed to market at every season of the year.

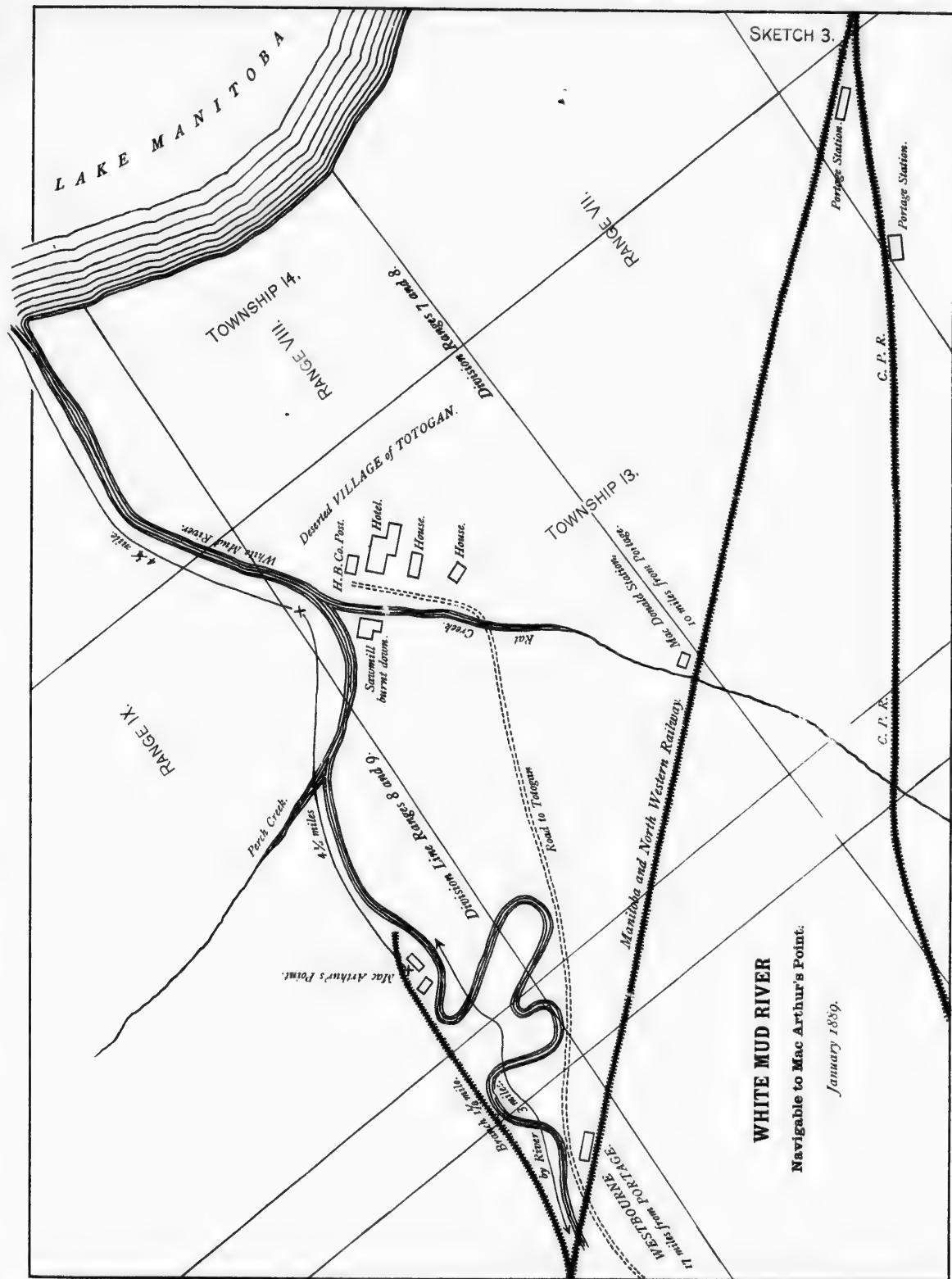
The only river which runs into Lake Manitoba south of the Narrows, which means practically the main body of the Lake and three-fourths of its area, is the White Mud River, which collecting the drainage of some hundreds of square miles to the south east of the Riding Mountain, runs in a very circuitous channel of about 100 miles in length on the general course of the Manitoba and North-West Railway, which it crosses at Bridge Creek, Arden, Gladstone, Woodside and Westbourne Station, from the last of which its course is nearly due north to Lake Manitoba which it joins

in the 15th Township of the 9th Range. At 4½ miles from its mouth it is joined by Rat Creek, which, rising in the "Bad Lands" crossed by the C.P.R. near Burnside, 8 miles to the west of Portage, and only 3 miles from the Assiniboine, is the medium by which that river at high water sends its surplus into Lake Manitoba, and helps at least, to cause the disastrous floods that have characterized that lake. In 1882 the Assiniboine carried away 1,000 feet of the new embankment formed for the C.P.R., and ran a stream that breadth and 10 feet deep in the channel into Lake Manitoba down this Rat Creek. At the confluence of this creek with the White Mud River is the deserted village of Totogan, which was ruined by the floods of 1880 to 1885. It was formerly a Hudson Bay Company's post with a large export fishery, a saw and grist mill and a hotel of respectable proportions, but the floods covered this prairie with water three feet deep, and the whole was abandoned by the proprietors. The Hudson Bay post is boarded up, the mills are burnt down, the hotel is now being pulled down for the lumber to be used elsewhere, and only one shanty is now inhabited. The White Mud is navigable for vessels drawing 6 feet of water, from its mouth to McArthur's point, 8½ miles, and to this point the Manitoba and North-Western Railway have a spur or branch line 1½ miles in length, which is at present the only means by which any freight is brought from the lake. (SEE SKETCH 3). The Dominion Government have done considerable dredging between the lake and McArthur's Landing during the last three years, and Mr. McArthur's steamer, the *Saskatchewan*, a paddle-wheel boat 130 feet long and 26 feet beam, carrying 170,000 feet of lumber, has no difficulty in coming up to the Landing except in crossing the bar at the mouth of the river, which at the existing stage of water has only 3½ feet over it. The bar at present is only cut out 40 feet in width, but Mr. Gouin, the engineer in charge, tells me that by the end of next season this will be 100 feet in width and 6 feet in clear depth. Mr. McArthur has a saw mill 70 miles up the lake from the mouth of the river, to the south of the Narrows, between which and the Landing he has kept his steamer steadily employed, has brought down this season nearly two million feet, and could have sold locally in Portage four times as much lumber the past season if he had had it. The lake was at its lowest stage of water during the fall of 1887. The last season it has been 9 inches higher, but it is still too low for a boat like the *Saskatchewan* to pass through the Narrows, which will require considerable dredging and boulder removing to make a sufficient channel for 6 feet draught.

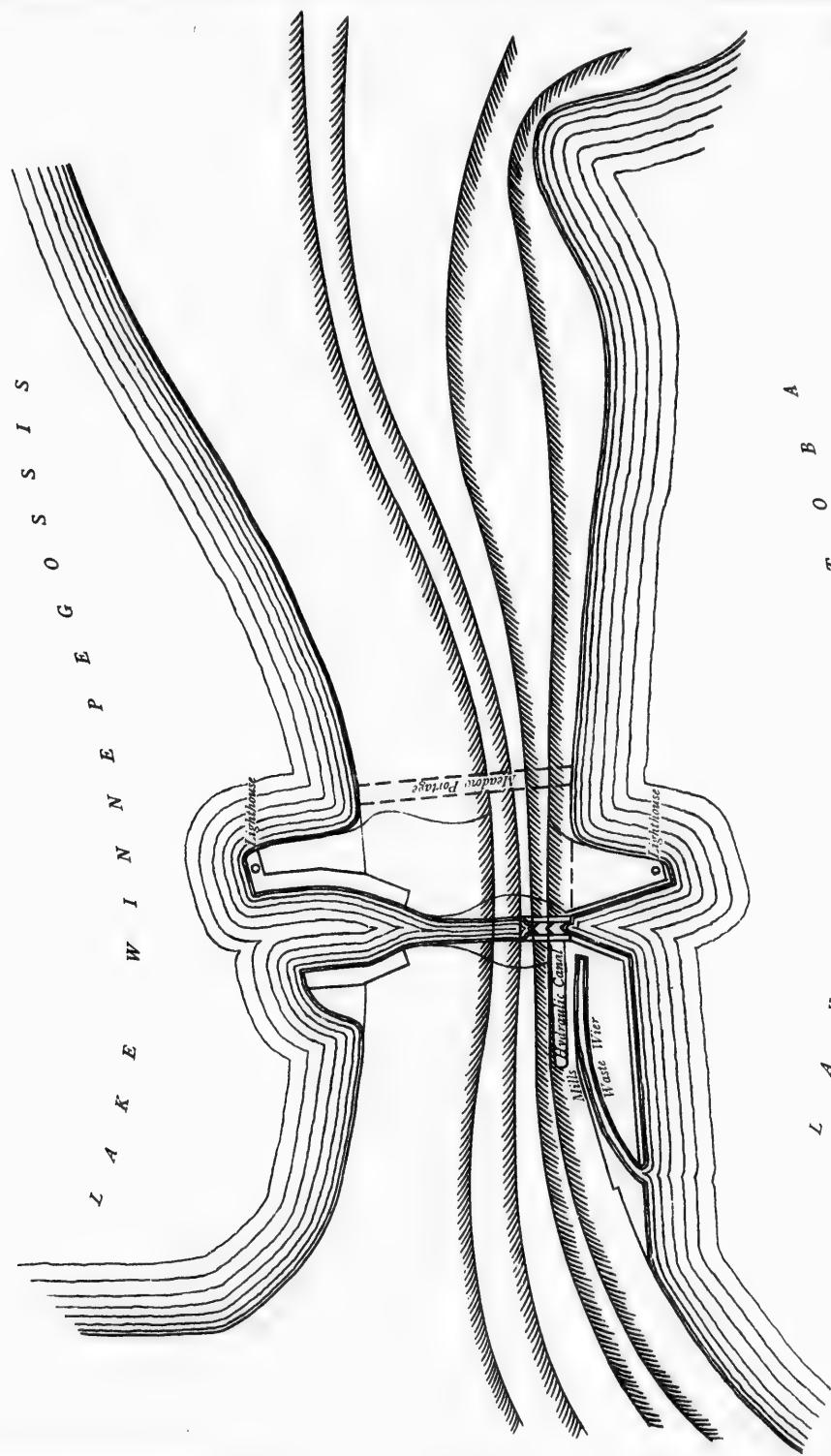
The natural outlet of Lake Manitoba is the Little Saskatchewan or Dauphin River, which after a circuitous course of 60 miles, empties into Lake Winnipeg with a total fall of 42 feet. Of the total distance 40 miles is in the waters of Lake St. Martin, 15 feet lower than Manitoba and 27 feet higher than Lake Winnipeg, and deducting this mileage, it is apparent that without locks the fall per mile on the stream above and below Lake St. Martin is far too great for an available steam

navigation. Besides this the inlet to the Little Saskatchewan is embarrassed by a large rocky formation on which at its present stage there is not more than 2½ feet of water. The current for 2 miles below this is extremely rapid falling over 6 feet; the channel through Lake St. Martin is difficult to follow and encumbered with great boulders and in the lower reach of the river there are 30 distinct rapids, some of them very shallow. There is little hope of making this access to Lake Manitoba of any commercial value.

The only connection between Lakes Manitoba and Winnipegosis, the lake above it, and which is its only important feeder, is the Waterhen River which enters the lower lake at its north-east angle at the head of a deep bay. Winnipegosis is a lake somewhat larger than Manitoba and 125 miles long in a north and south direction. Separated from the lower lake by a long narrow rocky barrier from 2 to 5 miles in width, the Waterhen River leaves its extreme south-east angle and runs in a north east direction to Waterhen Lake, thence running in an almost parallel course, makes a total length between the two large lakes of 39 miles. The Waterhen is a large river and might without much expense be improved into a tolerably navigable river, but it is very rapid in places and Waterhen Lake has no channel through it, and at the present stage of water is not over 2½ feet deep. It is full of boulders and these encumber the channel at all the rapids. Even if these were cleared away the communication would always be unsatisfactory for anything larger than a row boat or light draft steamer, and to make the navigation safe would cost probably as much as to form a regular canal through the intervening ridge. At the Meadow Portage, which is the best position for the canal, the breadth of the barrier is not quite 1½ miles. A plan of the canal and a profile of the ground are shown in Sketches 4 and 5, the site selected is about a quarter of a mile west of Meadow Portage, the advantage being that on the Manitoba side a long spit of sand with not over two feet of water occurs, on which the eastern breastwork for the canal approach would be placed, which would reduce the cost of this necessary protection for the canal entrance, whilst at the Winnipegosis end, where the water is very shallow for 1,000 feet from the shore, there would be less dredging required than if the canal were nearer to the present Portage track. On both lakes some protection from the east winds, north-east on one lake and south-east on the other, is necessary, and this location seems to be the most advantageous for securing this. The surface of the land on the north side of the ridge for 1½ miles will not average three feet above the Winnipegosis, the remaining half mile rises on either side to a summit 12 feet above the upper and 31 feet above the lower lake, and this ridge would appear to be of a solid but not very hard limestone, excepting the six feet of the top, which is disintegrated limestone at the bottom, then gravel, and then loam with decayed vegetable matter for the upper two feet. There will be about 400,000 cubic yards of material above water level, 300,000 cubic yards below and 100,000 of dredging at the two ends, the cost of which will probably vary from 30



SKETCH 4.



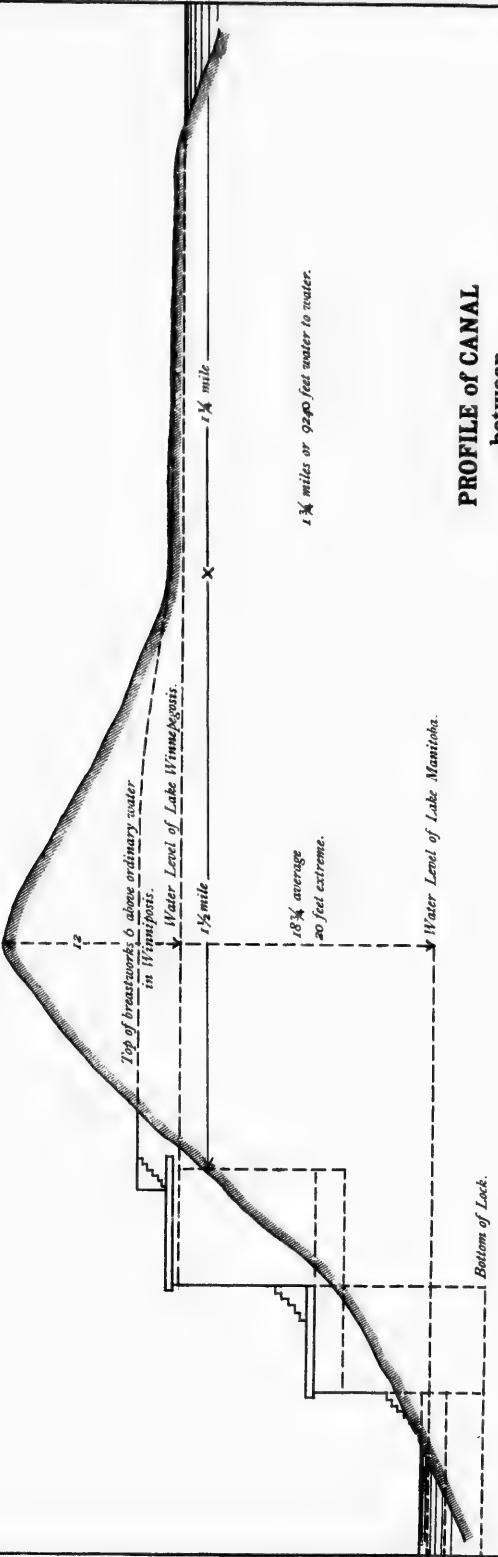
Lakes Manitoba and Winnepegosis.

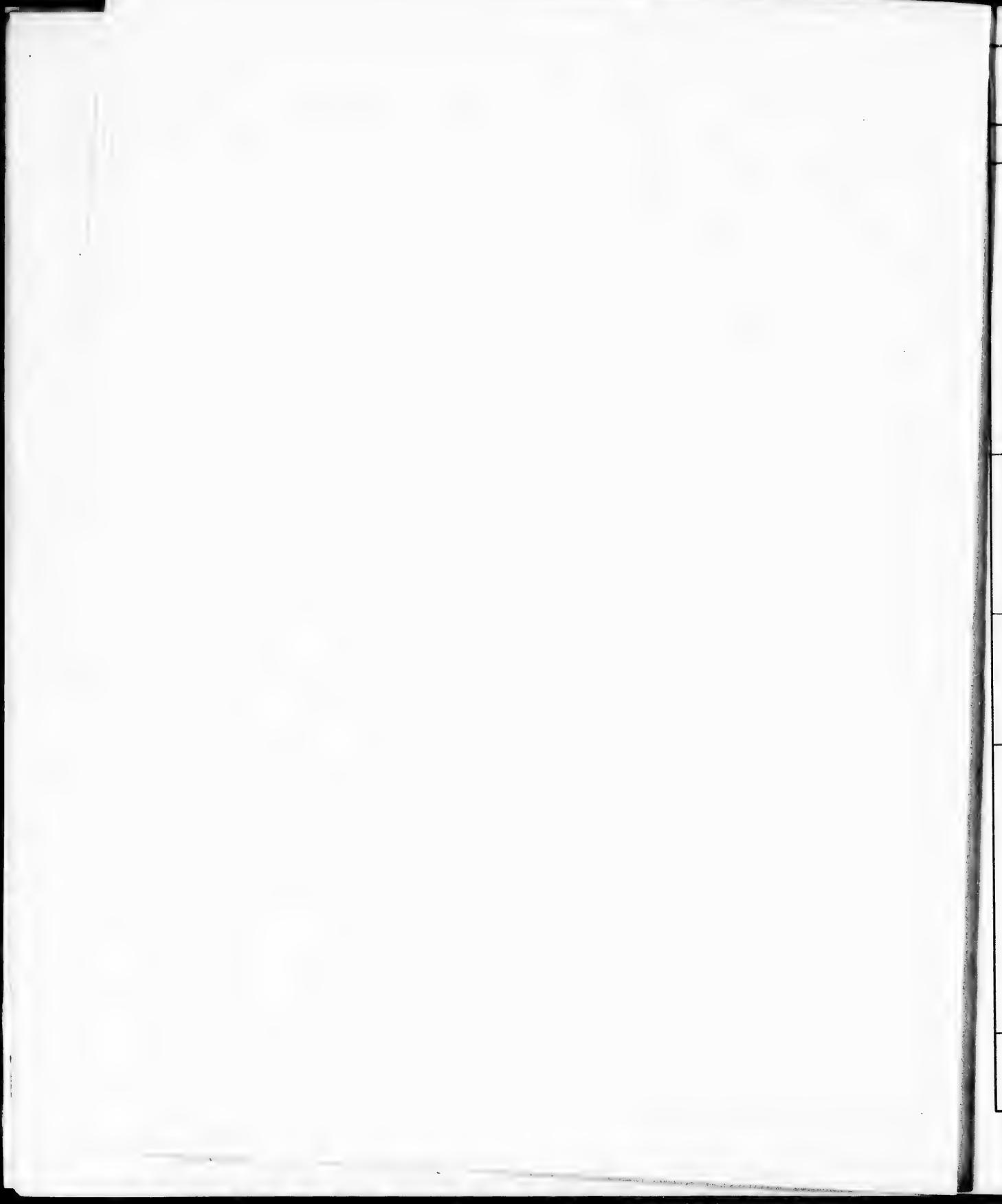
PROFILE of CANAL
between

Water Level of Lake Manitoba.
Bottom of Lock.

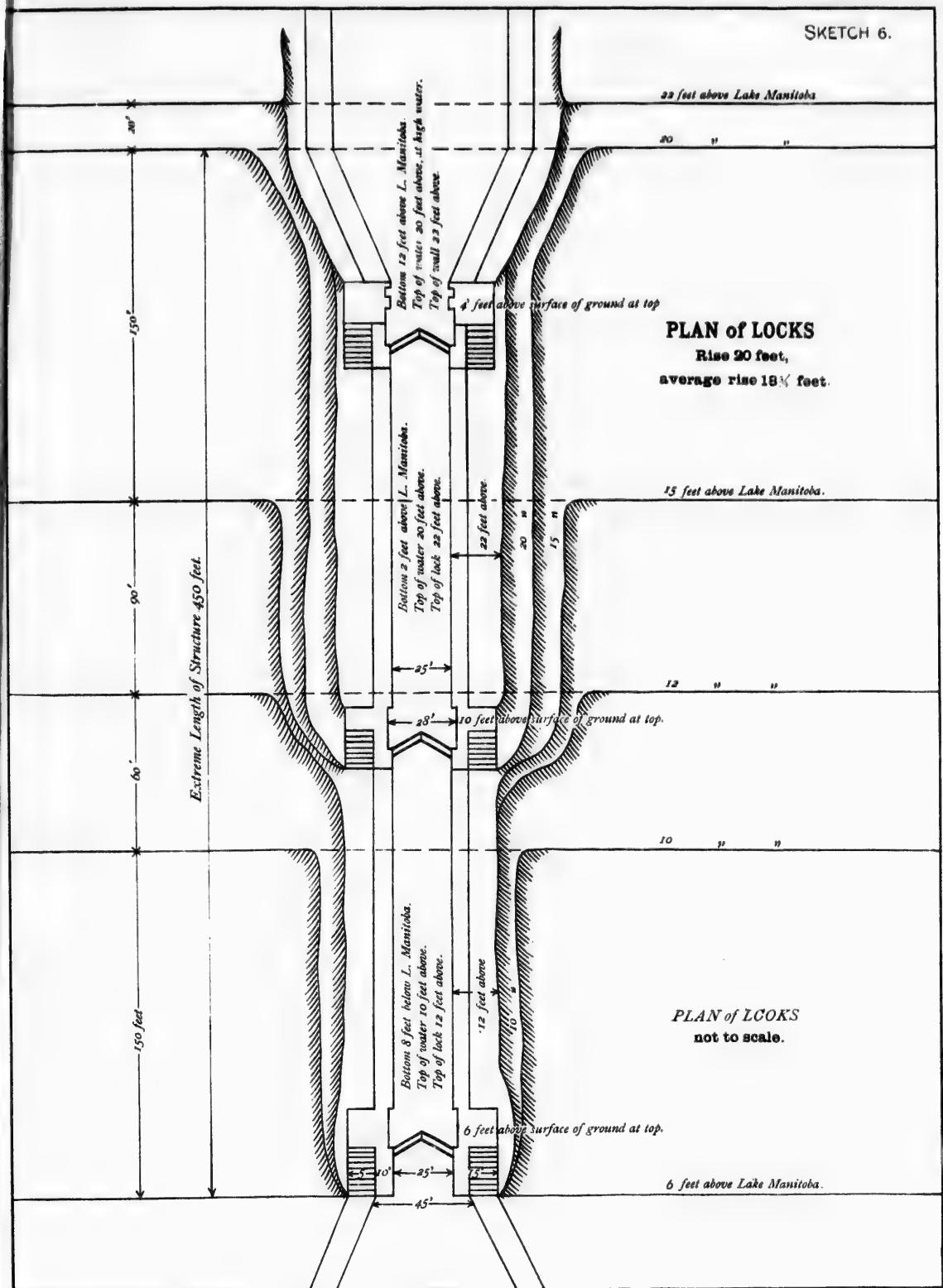
1 $\frac{1}{2}$ miles or 9240 feet water to water.

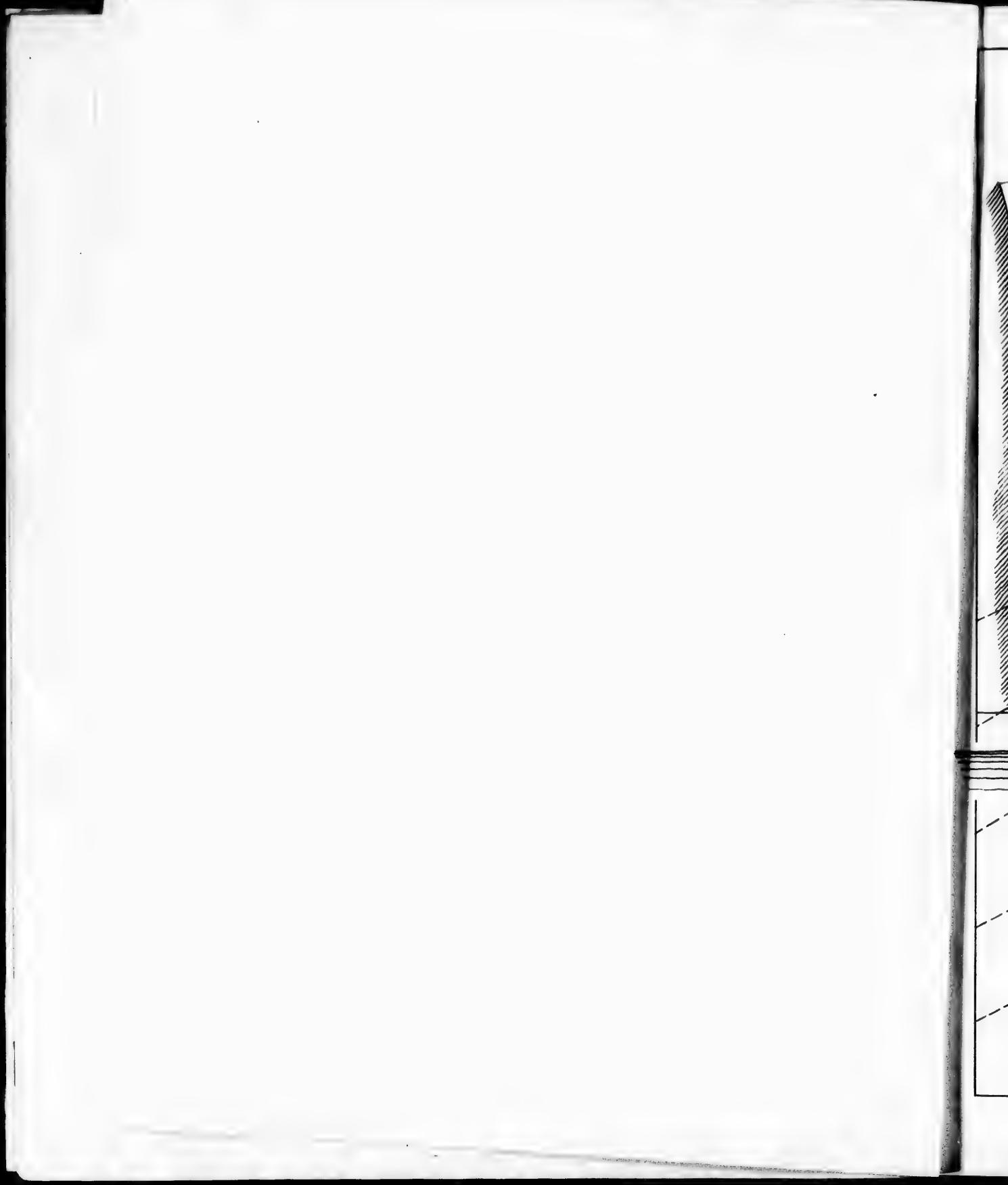
18 $\frac{1}{4}$ average
20 feet extreme.



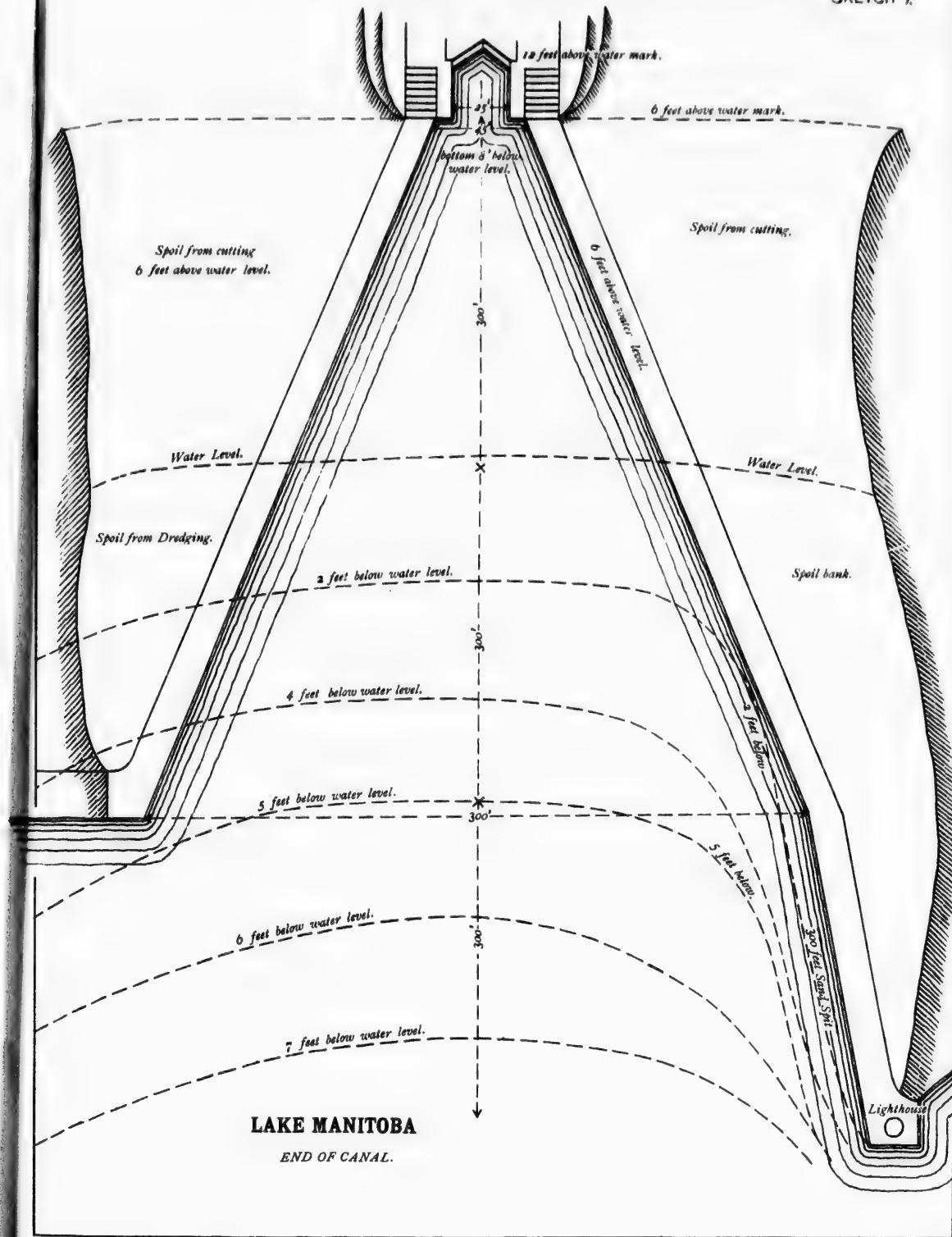


SKETCH 6.





SKETCH 7.





cents to \$1.50 per yard, the latter for rock when blown out below water level, some of which will necessarily have to be taken out under water. I have sketched (Nos. 6 and 7) a design for a pair of combined locks with a total lift of 20 feet, a chamber 25 feet wide and 120 long, intended to take in a screw steamer 24 feet over all, or two twelve feet barges abreast, each lock lifting 10 feet; and the upper gates raised sufficiently to prevent any high water from Winnipegosis finding its way over them. Lake Winnipegosis when at rest is 18 $\frac{1}{2}$ feet higher than Manitoba, but the wind has considerable influence on both lakes, and the same wind which raises the water in one lake depresses it in the other in an opposite direction. An ordinary strong wind makes over a foot difference in each, when the two lakes, if it is a north-west wind, will show nearly 21 feet difference, or if it is a south-east wind, it may only be 17 feet difference. Very heavy storms will raise or lower the water nearly 2 feet. It will be necessary therefore to make the locks suitable for a lift varying from 8 $\frac{1}{2}$ to 10 $\frac{1}{2}$ feet each, to make the channels to them 8 feet deep to secure a uniform 6 feet of navigation, and to make the breastwork of the upper lock 2 feet higher than the normal level, to guard it from the wash of an exceedingly heavy sea in the upper lake. All this is provided for in the sketches shewn in Nos. 6 and 7. The total cost of the work depends largely upon the dimensions fixed upon for the locks, and for the prism of the canal, and the character of the works. I have assumed that the material of the locks will be wood. There is a stone found upon the lake, samples of which I have examined, and a most beautiful stone not unlike Ohio freestone it is, but apart from the expense involved in masonry over timber I should not like to recommend this stone as fitted for the rough work and heavy usage of locks. An excellent spruce can be obtained on either lake, and timber of suitable dimensions for the locks proposed, and there is a bed of clay suitable for the necessary puddle walls and sidings, not far from the work. With these materials the locks and canal can be completed with all the necessary equipments for about \$560,000, which I think would finish the work of the canal proper.

To the milling interests for flour, this canal will give access to a better and larger wheat growing area than that already in the process of development, the whole market for the produce of which must be to the south and east. Winnipegosis is on the same level as the Saskatchewan River where that river begins to be navigable, and with only a short canal four miles long without locks, to cut through the cheaply excavated barrier called Mossy Portage that divides

them. West from this for 700 miles both branches of the Saskatchewan River are navigable, and speedy enough at all events for a downward cargo into Lake Winnipegosis. The canal between Winnipegosis and Manitoba and the cut from Winnipegosis to the Saskatchewan open up between them a thousand miles of navigation, the only available route that can be economically developed for bringing the wheat supply of this immense district to the western market.

All of which is respectfully submitted.

Your obedient servant,

(Signed) T. T. VERNON SMITH,

M. Can. Soc. C.E.

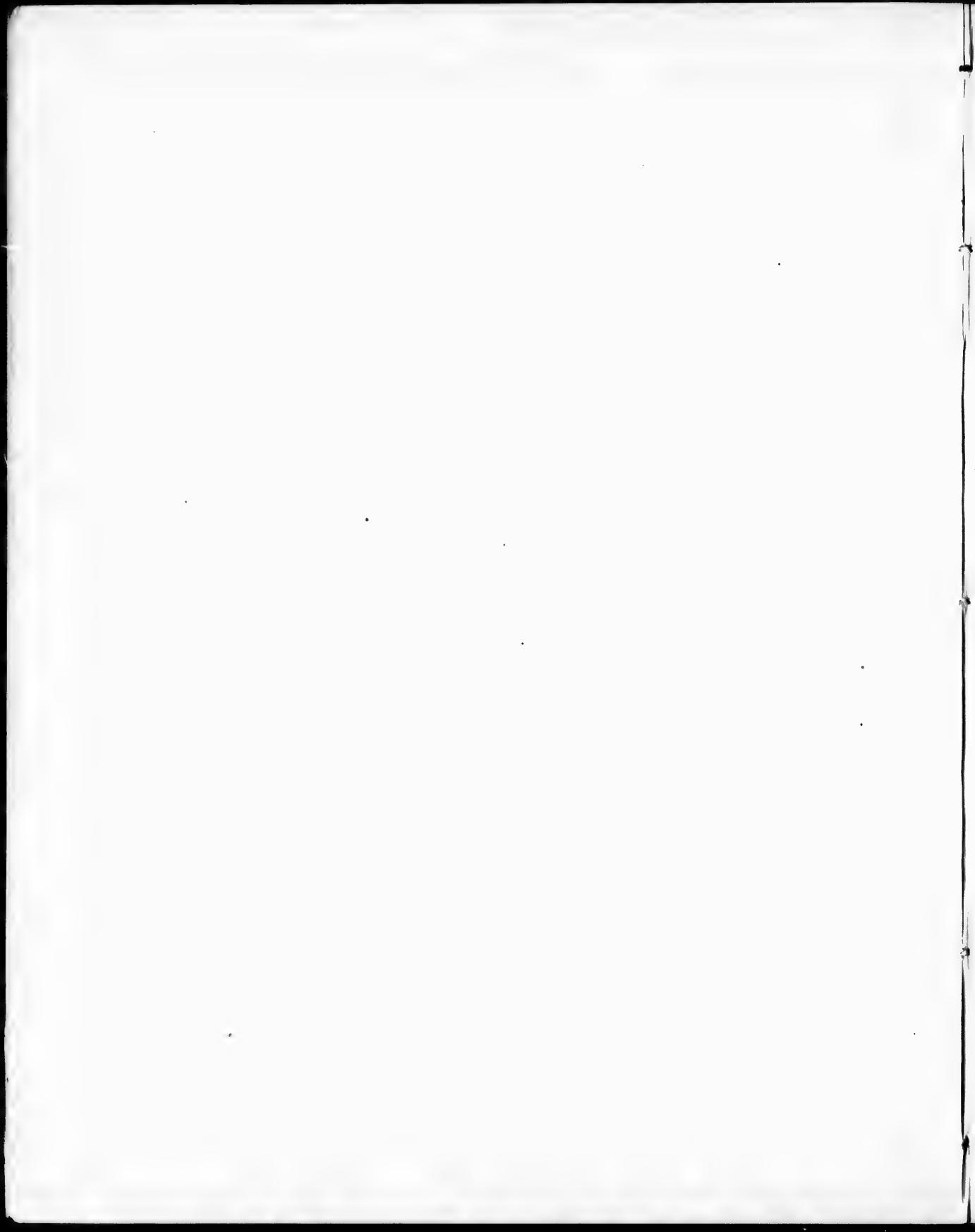
ESTIMATE OF COST OF CANAL.

The total cost of the works necessary to complete the canal and approaches, with locks 125 feet long and 25 feet wide, and with a waterway 60 feet wide at the surface and 6 feet deep, I estimate at \$560,360. The difficulty of access, the isolation of the place and the impossibility of moving timber or supplies from one lake to the other without great expense and delay are difficulties in the construction of the work, the exact value of which it is almost impossible to estimate, and makes any very close calculation difficult. To cover contingencies no doubt contractors would ask more than this sum, but this is based upon prices that should be sufficient in ordinary localities.

According to the latest surveys the route by this canal through the two great lakes, opening up 240 miles of steam navigation to a connection with the three railways concentrating at Portage la Prairie, throwing into a market where the want is very much felt the timber supply from the Upper Winnipegosis, and bringing into easy access to Winnipeg the agricultural lands of the Saskatchewan Valley, is seen to be one of more than local importance, and gives this a national value that few enterprises that have been hitherto promoted can so cheaply and so easily accomplish. Besides these obvious advantages, immediately to the north of the land on the opposite shore of Winnipegosis is a most valuable deposit of salt. On several localities on both lakes are exposures of valuable building stone, some of the samples being a light colored stone not unlike in appearance to the Ohio sandstone, which has been used in the public buildings at Ottawa, and other minerals of economic value are known to exist, to be made available by the cheap route that this canal is designed to open up to commerce.

(Signed) T. T. VERNON SMITH,

M. Can. Soc. C.E.



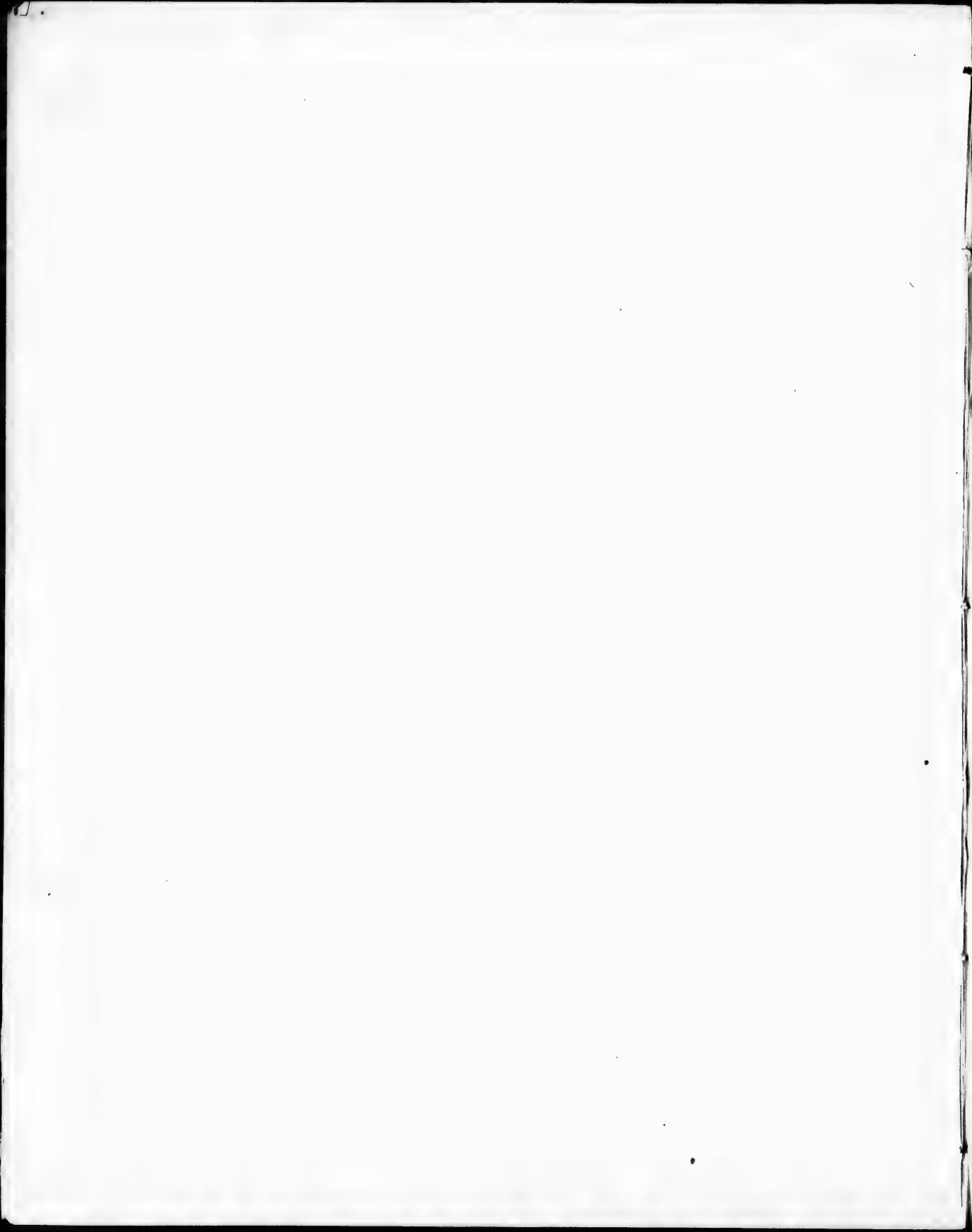
DEBATES

—IN—

THE HOUSE OF COMMONS

—ON—

THE WATER ROUTE BETWEEN LAKES MANITOBA AND WINNIPEGOSIS.



Development of the North-West---Inter-lake Navigation.

(*Extracts from the Debates in the House of Commons, March 23rd, 1885.*)

Mr. McCALLUM—I have every confidence in the North-West; I have every confidence in the Pacific Railway; I know the North-West is destined to be a great country, and I am satisfied that this country cannot expend any money for any purpose that would be more beneficial to the interests of the country than the improvement of the Saskatchewan. It runs for 1,000 miles parallel to the railway, at a distance of from 100 to 200 miles from it. That will give another route, which is a water route, from Edmonton, at the head waters of navigation, to Winnipeg.

Mr. ROYAL—It is a matter of great gratification to the members from Manitoba to hear the expressions used by the hon. gentleman who has just taken his seat about the prospects of the North-West and the duty of the Government to encourage immigration into those parts of the country. It is equally gratifying to us to know that every hon. gentleman who goes to Manitoba and visits the North-West comes back next session fully impressed with the importance of that country; and we are sure that every hon. member who comes up to the North-West and visits us will make a speech in the House the next session dilating upon the importance of the agricultural resources of that wonderful country. With regard to the motion just made by my hon. friend, I believe that no one can deny the importance of opening up the navigation of the Saskatchewan River. But, sir, apart from that, I believe it is very important that the North-West should be opened up by railways. We know that railway facilities are much more prompt and much cheaper than navigation facilities, and as soon as the railways under construction are completed, they will certainly meet all the requirements of the country for a few years at least. However, this would not prevent the Government, if there is sufficient money in the public coffers, from improving the navigation of the Saskatchewan. I believe, also, that if the Government would spend a sum of money in opening up the navigation of Lake Manitoba, I believe it would be equally as well spent, because opening up certain districts of the Carrot River, for instance, which empties into Lake Manitoba, would develop the timber resources of the Porcupine Hills. A petition to that effect has lately been placed before the Minister of Public Works, who takes such a deep interest in the development of Manitoba and the North-West, a petition signed by all the merchants and all the traders who have anything to do with the navigation of that river, or with the development of the timber interest in that part of the country. The petition called the attention of the hon. the Minister of Public Works to the importance of opening up the navigation of Lake Manitoba and Lake Winni-

pegosis with that of some of the rivers that empty into those lakes. Without wishing in the least to detract from the importance of improving the navigation of the Saskatchewan, a navigation which, so far, is rather spasmodic and uncertain during portions of the year, I BELIEVE IF THE GOVERNMENT COULD AFFORD TO CUT A CANAL BETWEEN THESE TWO LAKES IT WOULD OPEN UP A VERY LARGE, GROWING, AND MOST VALUABLE SECTION OF THE COUNTRY; IT WOULD OPEN UP THE VALLEY OF THE CARROT RIVER, AND TEND TO DEVELOP THE TIMBER RESOURCES OF THAT PART OF THE COUNTRY. I repeat, in conclusion, that it is very gratifying to the members from Manitoba to know that whenever an hon. gentleman has an opportunity to come up west and visit us, he comes back with his mind fully impressed, and at the same time totally unprejudiced, with regard to the importance of paying more attention to the development of that country.

Mr. WATSON—I desire to endorse the remarks of the hon. gentleman for Monck (Mr. McCallum), who has brought this matter to the attention of the Government. We can hardly realize the importance of improving the navigable streams for the development of that country. I ALSO ENDORSE THE SENTIMENTS OF THE HON. MEMBER FOR PROVENCHER (Mr. Royal) AS TO THE DESIRABILITY NOT ONLY OF IMPROVING THE NAVIGATION OF THE SASKATCHEWAN, BUT OF LAKE MANITOBA, AND THE OPENING UP OF THE TIMBER LIMITS ON THE PORCUPINE HILLS AND LAKE WINNIPEGOSIS, NORTH OF LAKE MANITOBA. Last year there was an appropriation made for the improvement of the Waterhen river. I am aware that none of that sum was expended in improving the Waterhen river, but the money was spent in preparing for dredging, and it is to be hoped that the dredging plant will be of some service. I think the Government was wise in coming to the conclusion that it would not be right to spend any money on the improvement of the Waterhen river.

SIR JOHN MACDONALD—What you want is a canal.

MR. WATSON—WE WANT A CANAL ACROSS MEADOW PORTAGE, WHICH IS ONLY ONE AND THREE-QUARTERS OF A MILE WIDE, WITH NO ENGINEERING DIFFICULTIES IN THE WAY, AND HAVING A FALL OF ONLY 19 FEET, WHICH WOULD REQUIRE ONLY TWO LOCKS TO OVERCOME THE DIFFERENCE IN LEVELS. IF THIS CANAL WAS BUILT, AND THE SASKATCHEWAN IMPROVED IN THE WAY MENTIONED BY MY HON. FRIEND, WE WOULD HAVE A WATER STRETCH FROM WHITE MUD RIVER ON THE MANITOBA AND NORTH-WESTERN RAILWAY TO EDMONTON, WITH THE EXCEPTION OF MOSSY PORTAGE. IT WILL OPEN UP A LARGE TRADE. I believe

there is a company formed with the idea of building a tramway from the head waters of Lake Winnipegosis to the waters of the Saskatchewan, and such an enterprise would open up a considerable traffic in that direction. Some improvements have been made on the White Mud river connecting Lake Manitoba with the Manitoba and North-Western Railway. I hope that the Hon. Minister of Public Works will see his way clear to put a sufficient sum in the estimates to start the work this year, if not complete it. There are large tracts of timber limits granted, but they are not being operated, and the leases of some of them have actually expired. These people claim that the reason for not operating the limits is that they cannot handle their lumber with any convenience or profit. I hope that before this session closes the Minister will bring down an amount for the purpose of cutting a canal across Meadow Portage.

SIR RICHARD CARTWRIGHT—I am glad the hon. gentleman for Monck (Mr. McCallum) has brought this matter before the House. I have not myself had an opportunity of visiting the Saskatchewan region, but in the various trips I have made to the North-West, I have made great many inquiries about it, and I BELIEVE HE IS PERFECTLY CORRECT IN SAYING THAT A MODERATE EXPENDITURE OF MONEY WOULD BE LIKELY TO OPEN UP SEVERAL HUNDRED MILES OF NAVIGATION whether to the extreme length mentioned or not, I do not know. At present, if open, it is only for a very brief season at all events. I was informed that in addition to the boulders, which are comparatively easy to remove, a good many shifting sand bars and deposits of mud occur from time to time, which are not so easily dealt with. In any case, I think I may fairly say to the hon. member for Monck that although on this side of the House we have entered very strongly our dissent as to the wisdom of the steps which the Government have taken in the development of the North-West, WE FEEL AS DEEPLY IMPRESSED AS HE CAN WISH US TO BE WITH THE ENORMOUS IMPORTANCE OF DEVELOPING THAT COUNTRY, AND TO ANY MEASURE WHICH WE BELIEVE REASONABLE AND LIKELY TO PROMOTE THE REAL WELFARE OF THE NORTH-WEST, AS WE ARE DESIROUS OF LENDING OUR AID AS ARE HON. GENTLEMEN OPPOSITE.

MR. BLAKE—We always thought well of the magnificent water stretches.

SIR HECTOR LANGEVIN—The question in regard to the canal is one more within the Department of Railways and Canals than in my Department, though I must say the matter was brought very specially before me the other day by a deputation, the members of which thought that as I had visited the North-West, I would take special interest in the development of that country. AS THE HON. MEMBER FOR PROVENCHER (Mr. Royal) HAS STATED, THE MORE WE GO INTO THAT COUNTRY THE MORE WE BECOME CONVINCED THAT IT IS A COUNTRY WITH A GREAT FUTURE BEFORE IT. THERE CAN BE NO DOUBT THAT MILLIONS OF PEOPLE WILL FIND HAPPY HOMES THERE, and with a proper administration, as I hope we are giving, and will give that country, this Government with the help of Parliament will be enabled to throw a large immigration into the North-West, which is required to open it up and develop its resources. The question of the Waterhen river was brought before us several times, but the amount of expenditure supposed to be required for that work was rather too large for the present. We thought it might be postponed for that reason.

MR. MACKENZIE—There are already surveys in the Public Works Department of the region around Lake Winnipegosis.

SIR HECTOR LANGEVIN—I did not say otherwise. We have those surveys; they were specially prepared in order to show the difference of levels and so on. I do not think the work is a very difficult one. I understood the hon. gentleman spoke of Lakes Manitoba and Winnipegosis.

MR. MACKENZIE—A lock might be built between Lake Winnipegosis and the Saskatchewan.

SIR HECTOR LANGEVIN—I was looking at the surveys the other day. It will be more of a financial than an engineering difficulty.

MR. MACKENZIE—One lock might do; 18 $\frac{3}{4}$ feet was the difference in the levels. There is no difference between the Saskatchewan and Lake Winnipegosis. So if two small cuttings were made navigation would be open from the south end of Lake Manitoba all the way to Rocky Mountain House during the season of navigation, even without any material improvement in the Saskatchewan river itself.

MEMORIALS AND ENDOSRATION

—OF—

THE CANAL BETWEEN LAKES MANITOBA AND WINNIPEGOSIS.

1. *Chlorophytum comosum* (L.) Willd.

2. *Chlorophytum comosum* (L.) Willd.

Local Endorsement of the Project.

For many years the vital importance of a connection between the railway centres of the Manitoba and the outlying districts between Portage la Prairie and Lakes Manitoba and Winnipegosis, opening up a magnificent country and utilizing the vast body of water for purposes of navigation, has been set forth in memorials and endorsed by leading public men on both sides of the House of Commons. To prove this copies of these memorials brought down in returns to Parliament are appended to this report, as well as the remarks made by various members when the subject was discussed in Parliament:—

MEMORIAL OF THE CITY OF WINNIPEG.

To the Hon. Sir Hector Langevin, C.B., K.C.M.C., Minister of Public Works for the Dominion of Canada, Ottawa.

The petition of the undersigned residents of Manitoba and others interested in the settlement of the Canadian North-West and the development of its trade and internal resources respectfully submit:

1st. That a large area of valuable territory lying between the Rivers Assiniboine and Saskatchewan, forming the basins of the great lakes Manitoba and Winnipegosis, is now inaccessible to settlement and trade owing to the want of navigable communication between the said lakes.

2nd. That this large area is well timbered with spruce and tamarac, is said to hold valuable deposits of minerals, and both its lakes are abundantly stocked with white fish, an export trade which has already commenced on the south-western shore of Lake Manitoba.

3rd. That there is now continuous railway communication from all parts to a point on the White Mud River, which flows into Lake Manitoba, and by steamboats of light draught down the said river and through Lake Manitoba to the Water Hen River, which is too shallow for navigation.

4th. That steamboats can also freely and safely navigate Lake Winnipegosis.

5th. That a canal one mile and three quarters long cut through Meadow Portage would unite the waters of Lake Winnipegosis and Manitoba, and give uninterrupted navigation from one lake into the other.

6th. That while not opposed to any improvement of the Water Hen River, your petitioners believe that the cutting of the proposed canal would prove a cheaper, speedier and more permanent remedy.

Wherefore your petitioners respectfully pray that you will recommend to His Excellency the Governor-in-Council the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on Lakes Manitoba and Winnipegosis as may be found most suitable.

(Sd.) C. P. Brydges, Land Commissioner Hudson Bay Co.
D. McArthur. Strang & Co.
Thos. Scott, M.P. Robt. D. Richardson.
Hugh J. Macdonald. S. Blanchard.
A. G. B. Bannatyne. J. Royal, M.P.
S. F. Johnston. J. B. McArthur.
J. H. Ashdown. John McBeth.
W. Whitehead & Co. Alex. Logan.
Alex. Taylor. C. A. Barker.
Snowdon & Co. W. A. MacIntosh.
W. Swinford, Sec.-Treasurer McBean Bros.
Winnipeg Western Trans- W. D. Russell.
port Co. A. McKee.
Thos. H. Parr, C.E. Robt. A. Barker.
H. H. Swinford. M. deBosadadi.
Jas. Speets. C. Graburn.
John Caldwell. Rica W. Howard.
A. J. Darch & Co. John Cuddy.
Wm. Dodd. H. T. Gillard.
W. Ponton. L. W. Cuddy.
J. Hargrave. Alex. Kennedy.
J. H. Housser. W. Girdlestone.
A. Macdonald. R. R. Brough.
George Andrew. A. A. Cameron.
Joseph Metcalfe. Jos. Stovel.
Thos. Baird Taylor. G. H. Campbell.
Alfred Howard Wooley. James Flannigan.
J. E. T. Powis. G. T. Knight.
Thos. Ryan. John Sutherland.
A. Wright. R. T. Rilley.
E. Kelly. John W. Rigby.
Wm. Reydon. C. F. Church.
S. P. Parsons. R. J. Whitla & Co.
C. E. Leishmand. D. K. Elliott.
E. J. Cann. Lyon Mackenzie & Powis.
W. E. Hasley. A. W. Bleisell & Co.
Wm. Clark. Thos. Brownlow.
W. H. Browne. John Mann.
R. Maunsell. J. J. Kilgour.
Geo. E. Bayney, C.E. James Freeburn.
L. Steinoff. M. Egan.
C. Forrest. H. S. Crotty.
John Mackechnie. A. Polson.
D. Hope. J. L. Reid.
E. R. Abell, Steamboat In- Joseph Daupé, C. E.
spector for Manitoba. P. McArthur.
J. Y. Cain. W. J. Fortune.
David McArthur. J. O'Reilly.
Samuel Posson. T. H. Holmes.
John Carey. Chas. B. Rennick.
R. L. Ashbaugh. R. R. Keith.
George Johnstone. John Morrison.
Robert George, Wm. Fisk.
G. E. Banning. R. Low.
R. Patterson. P. J. Hewit.
James Sutherland. P. J. Hunt.
And many others.

ENDORSION OF ABOVE PETITION BY THE
PROVINCIAL GOVERNMENT.

Having carefully pursued the within petition and considered the objects to be attained, we heartily endorse the same and can safely recommend it to the Federal Government as a work of very great importance to the promotion of the Province with the Saskatchewan District and a very powerful factor in the development of that region.

(Signed) J. NORQUAY.
 C. P. BROWN.
 A. A. LARIEVEIRE.
 D. H. WILSON.

MEMORIAL OF THE TOWN OF PORTAGE LA PRAIRIE.

To the Honorable Sir Hector Langevin, C. B., K.C.M.G.,
Minister of Public Works for the Dominion of Canada,
Ottawa.

The petition of the undersigned residents of Manitoba and others interested in the settlement of the Canadian North-West, and the development of its trade and internal resources, respectfully submit :

1. That a large area of valuable territory lying between the Rivers Assiniboine and Saskatchewan forming the basin of the great lakes Manitoba and Winnipegos, is now inaccessible to settlement and trade, owing to the want of navigable communication between the said lakes.

2. That this large area is well timbered, with spruce and tamarac, is said to hold valuable deposits of minerals, and both its lakes are abundantly stocked with white fish, an export trade in which has already commenced in the southwestern shore of Lake Manitoba.

3. That there is now continuous railway communication from all parts to a point on the White Mud river, which falls into Lake Manitoba, and by steamboats of light draught down the said river and through Lake Manitoba to the Water Hen River, which is too shallow for navigation.

4. That steamboats can also freely and safely navigate Lake Winnipegos.

5. That a canal one mile and three quarters long, cut through Meadow Portage would unite the waters of Lakes Winnipegos and Manitoba, and give uninterrupted navigation from one lake into the other.

6. That while not opposed to any improvement of the Water Hen River, your Petitioners believe that the cutting of the proposed canal would be a cheaper, speedier, and more permanent remedy.

Wherefore your Petitioners respectfully pray that you will recommend to His Excellency the Governor-in-Council, the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on Lakes Manitoba and Winnipegos as may be found most suitable.

(Signed) E. MACDONALD,
 Mayor.
 W. A. WEST,
 Secy.-Treas.

Town of Portage La Prairie, Manitoba.

MEMORIAL OF THE JUDICIAL BOARD OF
MANITOBA.

To the Honorable Sir Hector Langevin, C.B., K.C.M.G.,
Minister of Public Works for the Dominion of Canada,
Ottawa.

The petition of the undersigned residents of Manitoba and others interested in the settlement of the Canadian North-West and the development of its trade and internal resources, respectfully submit :

1. That a large area of valuable territory lying between the Rivers Assiniboine and Saskatchewan, forming the basin of the great Lakes Manitoba and Winnipegos, is now inaccessible to settlement and trade owing to the want of navigable communication between the said lakes.

2. That this large area is well timbered with spruce and tamarac, is said to have valuable deposits of minerals, and both its lakes are abundantly stocked with white fish, an export trade in which has already commenced on the southwestern shore of Lake Manitoba.

3. That there is now continuous railway communication from all parts to a point on the White Mud river, which falls into Lake Manitoba, and by steamboats of light draught down the said river and through Lake Manitoba to the Water Hen River, which is too shallow for navigation.

4. That steamboats can also freely and safely navigate Lake Winnipegos.

5. That a canal one mile and three quarters long cut through Meadow Portage would unite the waters of Lakes Winnipegos and Manitoba and give uninterrupted navigation from one lake into the other.

6. That while not opposed to any improvements of the Water Hen River, your petitioners believe that the cutting of the proposed canal would prove a cheaper, speedier and more permanent remedy.

Wherefore your petitioners respectfully pray that you will recommend to His Excellency the Governor-in-Council the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on Lakes Manitoba and Winnipegos as may be found most suitable.

(Signed) E. MACDONALD,
 Chairman C. J. B.
 J. W. JACKSON,
 Secretary-Treasurer.

On behalf of Central Judicial Board of Province of Manitoba, Portage La Prairie.

January 30th, 1885.

MEMORIAL OF THE MUNICIPALITY OF PORTAGE LA PRAIRIE.

To the Honorable Sir Hector L. Langevin, C.B., K.C.M.G.,
Minister of Public Works for the Dominion of Canada,
Ottawa.

The petition of the undersigned, as representatives of residents of Manitoba and others interested in the settlement of the Canadian North-West and the development of its trade and internal resources, respectfully submit :

1. That a large area of valuable territory lying between the Rivers Assiniboine and Saskatchewan, forming the basin of the great lakes Manitoba and Winnipegos, is now inaccessible to settlement and trade owing to the want of navigable communication between the said lakes.

2. That this large area is well timbered with spruce and tamarac, is said to hold valuable deposits of minerals, and that its lakes are abundantly stocked with white fish, an export in which has already commenced on the south-western shore of Lake Manitoba.

3. That there is now continuous railway communication from all parts to a point on which White Mud River falls into Lake Manitoba, and by steamboats of light draught down the said river and through Lake Manitoba to the Water Hen River, which is too shallow for navigation.

4. That steamboats can also freely and safely navigate Lake Winnipegos.

5. That a canal one mile and three quarters long cut through Meadow Portage would unite the waters of Lakes Manitoba and Winnipegos, and give uninterrupted navigation from one lake into the other.

6. That while not opposed to any improvement of the Water Hen River, your petitioners believe that the cutting of the proposed canal would prove a cheaper, speedier and more permanent remedy.

Wherefore your petitioners respectfully pray that you will recommend to His Excellency the Governor-in-Council the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on Lakes Manitoba and Winnipegos as may be found suitable.

Signed on behalf of the Council of the municipality of Portage la Prairie this 12th day of January, 1885.

(Signed) M. FERRISS,
Reeve.
J. W. JACKSON,
Sec. Treasurer.

export trade which has already commenced on the south-western shore of Lake Manitoba.

3. That there is now continuous railway communication from all parts to a point on the White Mud River which falls into Lake Manitoba, and by steamboats of light draught down the said river and through Lake Manitoba to the Water Hen River which is too shallow for navigation.

4. That steamboats can also freely and safely navigate Lake Winnipegos.

5. That a canal one mile and three quarters long, cut through Meadow Portage, would unite the waters of Lakes Winnipegos and Manitoba, and give uninterrupted navigation from one lake into the other.

6. That while not opposed to any improvement of the Water Hen River, your petitioners believe that the cutting of the proposed canal would prove a cheaper, speedier, and more permanent remedy.

Wherefore your petitioners respectfully pray that you will recommend to his Excellency the Governor-in-Council, the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on Lakes Manitoba and Winnipegos as may be found most suitable.

(Signed) W. H. WEST,
Reeve.

Having carefully perused the above petition and considered the objects to be attained, we heartily endorse the same, and can safely commend it to the favorable consideration of the Federal Government as a work of very great importance to the promoters of the trade of the province with the Saskatchewan District, and a very powerful factor in the development of that region.

(Signed) C. P. BROWN,

(Minister Public Works and representative in the Provincial Legislature for this part of the Province.)

MEMORIAL OF THE MUNICIPALITY OF WEST-BOURNE, MANITOBA.

To the Honorable Sir Hector Langevin, C.B., K.C.M.G.,
Minister of Public Works for the Dominion of Canada,
Ottawa:

The petition of the undersigned residents of Manitoba and others interested in the settlement of the Canadian North-West, and the development of its trade and internal resources, respectfully submit:—

1. That a large area of valuable territory lying between the Rivers Assiniboine and Saskatchewan forming the basin of the great lakes Manitoba and Winnipegos is now inaccessible to settlement and trade owing to the want of navigable communication between the said lakes.

2. That this large area is well timbered with spruce and tamarac, is said to hold valuable deposits of minerals, and both its lakes are abundantly stocked with white fish, an

MEMORIAL OF THE TOWN OF GLADSTONE.

To the Honorable Sir Hector L. Langevin, C.B., K.C.M.G.,
Ottawa.

The petition of the undersigned residents of Manitoba and others interested in the settlement of the Canadian North-West and the development of its trade and internal resources, respectfully submit:

1. That it is a large area of valuable territory lying between the rivers Assiniboine and Saskatchewan, forming the basin of the great lakes Manitoba and Winnipegos, is now inaccessible to settlement and trade owing to the want of navigable communication between the islands.

2. That this large area is well timbered with spruce and tamarac and is said to hold valuable deposits of minerals, and both its lakes are abundantly stocked with white fish, and export trade in which has already commenced on the south-western shore of Lake Manitoba.

That there is now continuous railway communication from all parts to a point on the White Mud river, which falls into Lake Manitoba, to the Water Hen River, which is too shallow for navigation.

4. That steamboats can also freely and safely navigate Lake Winnipegosis.

5. That a canal one mile and three-quarters long cut through Meadow Portage would unite the waters of lakes Manitoba and Winnipegosis, and give uninterrupted navigation from one lake into the other.

6. That while not opposed to any improvements of the

Water Hen River, your petitioners believe that the cutting of the proposed canal would prove a cheaper, speedier and more permanent remedy.

Wherefore your petitioners respectfully pray that you will recommend to His Excellency the Governor-in-Council the great importance of cutting and locking a canal for steamboats drawing six feet of water across the Meadow Portage between such points on lakes Manitoba and Winnipegosis as may be found most suitable.

(Signed) GEO. AUSTIN,
Mayor.

